CONTINUOUS PROCESS AND APPARATUS FOR MAKING THERMOFORMED ARTICLES

Abstract of the Disclosure

A continuous process for making a thermoplastic article comprises extruding a sheet of thermoplastic and contacting the sheet with a mold surface while the sheet is in a substantially non-oriented state. The mold surface is selectively heated and/or cooled during thermoforming to maintain the sheet in a molten or thermoformable state. A stripper plate adjacent to the mold surface is maintained at different temperature for inducing a predetermined degree of crystallinity to the sheet, for increasing web stiffness and improving web alignment, and optionally for assisting in the separation of the articles from the mold. A continuous apparatus for making thermoformed articles has co-extruders for extruding at least two distinct layers, which can have dissimilar properties (*e.g.*, polar and non-polar), and a temperature controlled molding surface. Preferred thermoplastic compositions of the present invention have improved toughness and retained intrinsic viscosity.